

A high frequency bus system which insures uniform arrival times of high-fidelity signals to the devices on the high frequency bus, despite the use of the bus on modules and connectors. A high frequency bus system includes a first bus segment having one or more devices connected between a first and a second end. The first bus segment has at least a pair of transmission lines for propagating high frequency signals and the devices are coupled to the pair of transmission lines. The high frequency bus system also includes a second bus segment which has no devices connected to it. The second bus segment also has at least a pair of transmission lines for propagating high frequency signals. The first end of the first segment and second end of the second segment are coupled in series to form a chain of segments and when two signals are introduced to the first end of the second bus segment at the substantially the same time, they arrive at each device connected to the first bus segment at substantially the same time. Also, when two signals originate at a device connected to the first bus segment at substantially the same time, they arrive at the first end of the second bus segment at substantially the same time. Uniform arrival times hold despite the use of connectors to couple the segments together, despite the segments being located on modules, without the need for stubs, despite the presence of routing turns in the segments and despite the type of information, such as address, data or control, carried by the signals.